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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,281	12/07/2001	Masayoshi Nakano	JP920000367US1	5932

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THE LAW OFFICE OF IDO TUCHMAN
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EXAMINER

PRIZIO JR, PETER

ART UNIT PAPER NUMBER

2674

DATE MAILED: 07/01/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,281

Applicant(s)

NAKANO ET AL.

Examiner

Peter Prizio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed on 28 April 2004.

Claim Status

2. Claims 1 – 15 and 17 – 19 pending.
3. Claims 1 – 15 and 17 – 19 rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 – 8, 12, and 17 - 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,067,080 to Holtzman in view of US Patent 5,737,740 to Henderson et al. (Henderson) and in view of US Patent 5,599,122 to Yu.

6. Regarding claim 1, Holtzman teaches a pen input apparatus comprising a pen input apparatus (column 4, lines 40 – 45), a type recognition unit (column 4, lines 55 – 60), and a transmitter (column 4, lines 60 – 65). Holtzman does not teach a plurality of penpoints, but does suggest the use of alternate marking devices (column 4, lines 55 – 60). Henderson teaches using multiple digitizer pens (column 5, lines 44 – 61), but does

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not teach one pen with multiple penpoints. However, Yu (figs. 1 & 2) does teach a pen with multiple penpoints (11) and a selector (13).

7. Regarding claim 2, Holtzman, as applied to claim 1, further teaches a frequency generator for generating a different frequency for each penpoint (column 5, lines 35 – 41) and a recognition unit based on the frequency (column 5, lines 35 – 41) and Henderson, as applied to claim 1 above, further teaches an electromagnetic wave outputting unit (column 2, lines 30 – 38).

8. Regarding claim 3, Holtzman in view of Henderson and in view of Yu, as applied to claim 2, Henderson further teaches a penpoint ground detector (column 5, lines 33 – 36) and outputting an electromagnetic wave based on the penpoint grounded by the penpoint ground detector (column 5, lines 37 – 43) while Yu teaches a selector including a penpoint pushing-out mechanism (13 and Fig. 3).

9. Regarding claim 4, Holtzman in view of Henderson and in view of Yu, as applied to claim 1, Henderson further teaches a computer system including an application for generating image information (column 12, line 61 to column 13, line 9).

10. Regarding claim 5, Holtzman teaches an electronic input apparatus comprising a coordinate information recognition unit for recognizing a track drawn with a pen as coordinate information (column 4, lines 50 – 53), a type recognition unit (column 4, lines 55 – 60), and a transmitter (column 4, lines 60 – 65). Holtzman does not teach a plurality of penpoints, but does suggest the use of alternate marking devices (column 4, lines 55 – 60). Henderson teaches using multiple digitizer pens (column 5, lines 44 –

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61), but does not teach one pen with multiple penpoints. However, Yu (figs. 1 & 2) does teach a pen with multiple penpoints (11) and a selector (13).

11. Regarding claim 6, Holtzman, as applied to claim 5, further teaches a frequency generator for generating a different frequency for each penpoint (column 5, lines 35 – 31) and a recognition unit based on the frequency (column 5, lines 35 – 31) and Henderson, as applied to claim 1 above, further teaches an electromagnetic wave outputting unit (column 2, lines 30 – 38).

12. Regarding claim 7, Holtzman teaches an electronic input apparatus comprising a digitizer for grasping a track drawn by penpoint (column 4, lines 50 – 53), recognizing the attributes of the penpoint (column 4, lines 55 – 60), and an interface for outputting the position information (column 4, lines 60 – 65). Holtzman does not teach a plurality of penpoints, but does suggest the use of alternate marking devices (column 4, lines 55 – 60). Henderson teaches using multiple digitizer pens (column 5, lines 44 – 61), but does not teach one pen with multiple penpoints. However, Yu (figs. 1 & 2) does teach a pen with multiple penpoints (11) and a selector (13).

13. Regarding claim 8, Henderson, as applied to claim 7, further teaches a digitizer that allows a recording medium placed thereon (column 4, lines 10 – 15) and grasps the track drawn on the recording medium by the penpoint of the writing instrument as electronic information (column 4, lines 28 – 35).

14. Regarding claim 12, Holtzman teaches a digitizer comprising a pen information recognition unit (column 4, lines 55 – 60), track recognition unit for recognizing a track of a pen (column 4, lines 50 – 53), an output unit for generating position from the track

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recognized by the track recognition unit (column 4, lines 41+), but Holtzman does not teach a plurality of penpoints, but does suggest the use of alternate marking devices (column 4, lines 55 – 60). Henderson teaches using multiple digitizer pens (column 5, lines 44 – 61), but does not teach one pen with multiple penpoints. However, Yu (figs. 1 & 2) does teach a pen with multiple penpoints (11) and a selector (13).

15. Regarding claims 17 – 19, Holtzman, as applied to claims 1, 5, and 7 above further teaches using different frequencies to determine what the attributes are for the input apparatus (column 5, lines 36 – 41) where the implement produces signals having various frequencies which indicate different functions i.e. a frequency generator.

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Holtzman with multiple pens that can represent a plurality of different writing instruments where the penpoints of said pens have a tip that actuates when used thereby providing an electromagnetic signal to a digitizer pad (for example: column 5, lines 27 – 30) on which a recording medium can be placed (for example: column 5, lines 20 – 24) as taught by Henderson for the benefit of recording what is written on paper and providing an electronic copy and with multiple pens contained within one apparatus as taught by Yu for the purpose of combining multiple digitizer pens into one pen for selecting the desired input operation without changing the holding position of the hand. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

17. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Holtzman in view of Henderson and in view of Yu as applied to claim 7 above, and further in view of US Patent 3,819,857 to Inokuchi.

18. Holtzman further teaches using a different frequency for each penpoint selected (column 5, lines 36 – 41), but does not teach how the frequencies are generated while Henderson teaches using electromagnetic waves (for example: column 5, lines 1 – 3). However, Inokuchi (Fig. 4) teaches an input apparatus (11) including an oscillation circuit (12) for generating a predetermined frequency (column 4, lines 45 – 51) and a coil for outputting an electromagnetic wave (10).

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Holtzman in view of Henderson and in view of Yu with the oscillation circuit as taught by Inokuchi for the purpose of generating the electromagnetic wave used by the digitizer where the oscillation circuit supplies a digitizer pen with a wave that can be sensed using a simplified loop conductor arrangement while reducing the number of sense and driving amplifiers without losing resolution by detecting change in phase of the signal (for example: column 1, line 56 – column 2, line 30). One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

20. **Claims 10, 11, and 13 - 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson in view of Holtzman and in view of Yu.

21. Regarding claim 10, Henderson teaches a writing instrument for inputting to a digitizer comprising a plurality of penpoints (column 5, lines 44 – 51) for drawing images

on a recording medium placed on said digitizer (column 4, lines 10 – 15) and an electromagnetic wave outputting unit (column 2, lines 30 – 38), but Henderson fails to teach a separate frequency for each penpoint or a selector for each penpoint, however Holtzman teaches a frequency generator for generating a different frequency for each penpoint (column 5, lines 35 – 31) and Yu teaches a penpoint selector for selecting a specific penpoint from said plurality of penpoints (13 and Fig. 3).

22. Regarding claim 11, Henderson in view of Holtzman and in view of Yu, as applied to claim 10, Henderson further teaches a pressure detector (column 5, lines 32 – 36) and outputting an electromagnetic wave according to the detection result by the pressure detector (column 5, lines 36 – 43).

23. Regarding claims 13, Henderson (column 14) teaches a method of receiving position information based on the track drawn by the user on the recording medium (lines 35 – 45) and reflecting the track drawn on the recording medium to electronically record the information (lines 43 – 55). Henderson teaches multiple digitizer pens (column 5, lines 44 – 61), but does not explicitly teach sending attribute information, however Holtzman teaches using different frequencies to determine what the attributes are for the input apparatus (column 5, lines 36 – 41).

24. Regarding claim 14, Holtzman, as applied to claim 13, further teaches attribute information on at least one of color and thickness of the line (column 5, line 41) and Henderson (Fig. 3) teaches displaying the electronically recorded image on a display unit (41) with a color or thickness corresponding to the line drawn on the recording medium (column 12, lines 55 – 60).

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25. Regarding claim 15, Henderson (column 14) teaches a method of transmitting coordinate information based on a track drawn in x-y coordinates (column 11, lines 55+). Henderson teaches multiple digitizer pens (column 5, lines 44 – 61), but does not explicitly teach sending attribute information, however Holtzman teaches using different frequencies to determine what the attributes are for the input apparatus (column 5, lines 36 – 41).

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Henderson with the teachings of Holtzman and Yu for the purpose of combining multiple digitizer pens into one inking pen for creating a digital and paper record while having the ability to select the desired input operation while without changing the holding position of the hand. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

Conclusion

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

28. Applicant's arguments filed 28 April 2004 have been fully considered but they are not persuasive.

29. The rejection of claim 6 under 35 U.S.C. 112 second paragraph for containing insufficient antecedent basis in the claims has been withdrawn.

30. With respect to the art rejections, the applicant begins by arguing that there is no motivation to modify Yu or combine its teachings with Holtzman or Henderson to establish an obviousness rejection. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine the references lies within the inventions themselves. For example: Holtzman teaches a precision tracking system that accurately tracks a writing

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implement and further suggests that it has the ability to distinguish between marking and erasing devices as well as determining the line width, eraser swath, or color by using an encoding facility associated with the writing implements (for example, reference column 4, lines 54 – 60). While Henderson teaches a system that including a digitizer where multiple digitizer pens are provided corresponding to different colors, highlighters, erasers, etc. These pens are separate, but may have an optional removable insert to where a non-marking insert (for example, column 5, lines 45 – 55) or a felt-tipped marker insert can be interchanged (for example, column 16, lines 23 – 26). And Lastly, Yu teaches a conventional pen that contains multiple ink cartridges within and selector switches to select the desired penpoint to where the user can change the particular penpoint without changing the position of the hand. The motivation to modify Holtzman begins with Henderson where Henderson provides means of interchangeable penpoints for its digitizer pens while Holtzman only provides that there can be different types of digitizer pens automatically identified by the precision tracking system. The obvious motivation to combine is present to provide a precision tracking system, as provided by Holtzman, that can have multiple digitizer pens where the pens can be interchangeable as taught by Henderson. Furthermore, Yu is provided for the feature that multiple penpoints can be contained within one apparatus with a selection means for selecting between the cartridges. Although Yu deals with ink only pens and not digitizer pens, one of ordinary skill in the art at the time the invention was made would realize the effects of providing multiple penpoints with selection there between without having to change the position of the user's hand.

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Further, one would realize that instead of interchangeable penpoints as provided by Henderson, one could incorporate multiple digitizer penpoints into one unit for the same benefit as provided by Yu.

31. The applicant further argues the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

32. The applicant also argues that Holtzman does not provide a frequency generator, however, Holtzman does provides writing implements which indicate different functions based on various frequencies (for example, column 5, lines 35 – 41). Therefore the digitizers must have a frequency generator to provide a unique frequency associated with each.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Prizio whose telephone number is (703) 305-5712. The examiner can normally be reached on Monday-Friday (7:30-5:00), alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (703) 305-4709. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Prizio
Examiner
Art Unit 2674
June 16, 2004

Prizio



6/28/04
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